

WHAT IS CLAIMED:

1. A tissue product comprising:
an initially uncreped tissue web comprising a first side and a second
and opposite side, the tissue web comprising pulp fibers;
5 a bonding material applied to the first side of the tissue web
according to a preselected pattern, the first side of the tissue web having been
creped after application of the bonding material; and
wherein the characteristics of the first side of the tissue web are
different than the characteristics of the second side of the tissue web, the first side
10 of the tissue web having a dry surface depth of less than about 0.15 mm and a
wetted surface depth of greater than about 0.2 mm, the second side of the tissue
web having a dry surface depth of greater than about 0.2 mm.
2. A tissue product as defined in claim 1, wherein the first side of the
tissue web has a dry surface depth of less than about 0.12 mm and wherein the
second side of the tissue web has a dry surface depth of greater than about 0.25
mm.
3. A tissue product as defined in claim 1, wherein the first side of the
tissue web has a dry surface depth of less than about 0.12 mm and wherein the
second side of the tissue web has a dry surface depth of greater than about 0.30
mm.
4. A tissue product as defined in claim 1, wherein the first side of the
tissue web has a dry surface depth of less than about 0.1 mm and wherein the
second side of the tissue web has a dry surface depth of greater than about
0.33 mm.
5. A tissue product as defined in claim 1, wherein the first side of the
tissue web has a wetted surface depth of greater than about 0.25 mm.
6. A tissue product as defined in claim 1, wherein the first side of the
tissue web has a wetted surface depth of greater than about 0.3 mm.
7. A tissue product as defined in claim 4, wherein the first side of the
tissue web has a wetted surface depth of greater than about 0.3 mm.
8. A tissue product as defined in claim 1, wherein the tissue web has a
falling drape of less than about 1.5 seconds.
9. A tissue product as defined in claim 1, wherein the tissue web has a

falling drape of less than about 1.5 seconds, when normalized to a basis weight of 30 gsm.

10. A tissue product as defined in claim 1, wherein the tissue web has a falling drape of less than about 1.3 seconds, when normalized to a basis weight of 30 gsm.

11. A tissue product as defined in claim 1, wherein the tissue web comprises an uncreped through-air dried web.

12. A tissue product as defined in claim 1, wherein the bonding material comprises an ethylene vinyl acetate copolymer.

13. A tissue product as defined in claim 1, wherein the bonding material comprises a styrene-butadiene copolymer, a polyvinyl acetate polymer, a vinyl-acetate acrylic copolymer, an ethylene-vinyl chloride copolymer, an ethylene-vinyl chloride-vinyl acetate polymer, an acrylic polyvinyl chloride polymer, an acrylic polymer, or a nitrile polymer.

14. A tissue product as defined in claim 1, wherein the tissue web comprises a stratified web having a first outer layer, a middle layer, and a second outer layer, the middle layer comprising hardwood fibers or high-yield fibers.

15. A tissue product as defined in claim 1, wherein the product comprises a single ply wiping product.

16. A tissue product as defined in claim 1, wherein the tissue web has a basis weight of from about 10 gsm to about 120 gsm.

17. A tissue product as defined in claim 1, wherein the tissue web has a basis weight of from about 35 gsm to about 80 gsm.

18. A tissue product as defined in claim 1, wherein the bonding material is applied to the first side of the tissue web in an amount of from about 2% to about 10% by weight of the web.

19. A tissue product as defined in claim 1, wherein the bonding material is applied to the first side of the tissue web so as to cover at least 50% of the surface area of the first side of the web.

20. A tissue product as defined in claim 1, wherein the preselected pattern by which the bonding material is applied comprises a succession of discrete shapes.

21. A tissue product as defined in claim 1, wherein the tissue product

has a bulk greater than 10 cc/g.

22. A tissue product as defined in claim 11, wherein the tissue web includes an air side and a fabric side, the first side of the tissue web being the air side of the web.

23. A tissue product as defined in claim 1, wherein a second bonding material has been applied to the second side of the tissue web according to a preselected pattern, the second side of the tissue side remaining uncreped.

24. A tissue product as defined in claim 1, wherein the tissue web contains a strength agent.

25. A tissue product as defined in claim 24, wherein the tissue web is made from a stratified fiber furnish including a first outer layer and a second outer layer, the strength agent being incorporated into the first outer layer, the first outer layer forming the first side of the tissue web.

26. A tissue product as defined in claim 25, wherein the tissue web further includes a center layer, the strength agent being incorporated in the center layer.

27. A tissue product as defined in claim 26, wherein the strength agent is incorporated in the first outer layer, the center layer, and the second outer layer, the second outer layer forming the second side of the tissue web.

28. A tissue product as defined in claim 24, wherein the strength agent is coated, sprayed or printed onto the tissue web.

29. A tissue product as defined in claim 24, wherein the strength agent comprises a permanent strength agent.

30. A tissue product as defined in claim 24, wherein the strength agent comprises a temporary strength agent.

31. A tissue product comprising:

a tissue web comprising a first side and a second and opposite side, the tissue web comprising an uncreped through-air dried web, the tissue web comprising pulp fibers;

5 a bonding material applied to the first side of the tissue web according to a preselected pattern, the first side of the tissue web having been creped after application of the bonding material; and

wherein the first side of the tissue web is smoother than the second

side of the tissue web, the second side of the tissue web having a textured surface, the first side of the tissue web having a dry surface depth of less than about 0.15 mm and the second side of the tissue web having a dry surface depth of greater than about 0.2 mm.

32. A tissue product as defined in claim 31, wherein the first side of the tissue web has a wetted surface depth of greater than about 0.2 mm.

33. A tissue product as defined in claim 32, wherein the first side of the tissue web has a dry surface depth of less than about 0.12 mm and wherein the second side of the tissue web has a dry surface depth of greater than about 0.25 mm.

34. A tissue product as defined in claim 32, wherein the first side of the tissue web has a dry surface depth of less than about 0.12 mm and wherein the second side of the tissue web has a dry surface depth of greater than about 0.30 mm.

35. A tissue product as defined in claim 32, wherein the first side of the tissue web has a dry surface depth of less than about 0.1 mm and wherein the second side of the tissue web has a dry surface depth of greater than about 0.33 mm.

36. A tissue product as defined in claim 31, wherein the first side of the tissue web has a wetted surface depth of greater than about 0.25 mm.

37. A tissue product as defined in claim 31, wherein the first side of the tissue web has a wetted surface depth of greater than about 0.3 mm.

38. A tissue product as defined in claim 35, wherein the first side of the tissue web has a wetted surface depth of greater than about 0.3 mm.

39. A tissue product as defined in claim 31, wherein the tissue web has a falling drape of less than about 1.5 seconds.

40. A tissue product as defined in claim 31, wherein the tissue web has a falling drape of less than about 1.5 seconds, when normalized to a basis weight of 30 gsm.

41. A tissue product as defined in claim 31, wherein the tissue web has a falling drape of less than about 1.5 seconds, when normalized to a basis weight of 30 gsm.

42. A tissue product as defined in claim 31, wherein the bonding material

comprises an ethylene vinyl acetate copolymer.

43. A tissue product as defined in claim 31, wherein the bonding material comprises a styrene-butadiene copolymer, a polyvinyl acetate polymer, a vinyl-acetate acrylic copolymer, an ethylene-vinyl chloride copolymer, an ethylene-vinyl chloride-vinyl acetate polymer, an acrylic polyvinyl chloride polymer, an acrylic polymer, or a nitrile polymer.

44. A tissue product as defined in claim 31, wherein the tissue web comprises a stratified web having a first outer layer, a middle layer, and a second outer layer, the middle layer comprising hardwood fibers or high-yield fibers.

45. A tissue product as defined in claim 31, wherein the product comprises a single ply wiping product.

46. A tissue product as defined in claim 31, wherein the tissue web has a basis weight of from about 10 gsm to about 120 gsm.

47. A tissue product as defined in claim 31, wherein the bonding material is applied to the first side of the tissue web in an amount of from about 2% to about 10% by weight of the web.

48. A tissue product as defined in claim 31, wherein the bonding material is applied to the first side of the tissue web so as to cover at least 50% of the surface area of the first side of the web.

49. A tissue product as defined in claim 31, wherein the preselected pattern by which the bonding material is applied comprises a succession of discrete shapes.

50. A tissue product as defined in claim 31, wherein the tissue product has a bulk greater than 10 cc/g.

51. A tissue product as defined in claim 31, wherein the tissue web includes an air side and a fabric side, the first side of the tissue web being the air side of the web.

52. A tissue product as defined in claim 31, wherein a second bonding material has been applied to the second side of the tissue web according to a preselected pattern, the second side of the tissue side remaining uncreped.

53. A tissue product comprising:
a tissue web comprising a first side and a second and opposite side, the tissue web comprising pulp fibers, the tissue web comprising an uncreped

through-air dried web, the tissue web having a basis weight of from about 35 gsm to about 120 gsm;

5 a bonding material applied to the first side of the tissue web according to a preselected pattern, the first side of the tissue web having been creped after application of the bonding material, the bonding material being applied in an amount from about 2% to about 10% based on the weight of the tissue web; and

10 wherein the characteristics of the first side of the tissue web are different than the characteristics of the second side of the tissue web, the first side of the tissue web being smoother than the second side of the tissue web while the second side of the tissue web having a more textured surface than the first side of the tissue web, the first side of the tissue web having a dry surface depth of less than about 0.12 mm and a wetted surface depth of greater than about 0.25 mm, the second side of the tissue web having a dry surface depth of greater than about 0.3 mm, the tissue web having a falling drape of less than about 1.5 seconds.

15 54. A tissue product as defined in claim 53, wherein the first side of the tissue web has a dry surface depth of less than about 0.1 mm and wherein the second side of the tissue web has a dry surface depth of greater than about 0.33 mm.

55. A tissue product as defined in claim 53, wherein the first side of the tissue web has a wetted surface depth of greater than about 0.3 mm.

56. A tissue product as defined in claim 53, wherein the tissue web has a falling drape of less than about 1.5 seconds, when normalized to a basis weight of 30 gsm.

57. A tissue product as defined in claim 53, wherein the tissue web has a falling drape of less than about 1.1 seconds, when normalized to a basis weight of 30 gsm.

58. A tissue product as defined in claim 53, wherein the bonding material comprises an ethylene vinyl acetate copolymer.

59. A tissue product as defined in claim 53, wherein the bonding material comprises a styrene-butadiene copolymer, a polyvinyl acetate polymer, a vinyl-acetate acrylic copolymer, an ethylene-vinyl chloride copolymer, an ethylene-vinyl chloride-vinyl acetate polymer, an acrylic polyvinyl chloride polymer, an acrylic

5 polymer, or a nitrile polymer.

60. A tissue product as defined in claim 53, wherein the tissue web comprises a stratified web having a first outer layer, a middle layer, and a second outer layer, the middle layer comprising hardwood fibers or high-yield fibers.

61. A tissue product as defined in claim 53, wherein the product comprises a single ply wiping product.

62. A tissue product as defined in claim 53, wherein the bonding material is applied to the first side of the tissue web so as to cover at least 50% of the surface area of the first side of the web.

63. A tissue product as defined in claim 53, wherein the preselected pattern by which the bonding material is applied comprises a succession of discrete shapes.

64. A tissue product as defined in claim 53, wherein the tissue product has a bulk greater than 10 cc/g.

65. A tissue product as defined in claim 53, wherein the tissue web includes an air side and a fabric side, the first side of the tissue web being the air side of the web.

66. A tissue product as defined in claim 53, wherein a second bonding material has been applied to the second side of the tissue web according to a preselected pattern, the second side of the tissue side remaining uncreped.